

Applicant: Rodenstock GmbH  
Series of Progressive Ophthalmic Lenses with Low Divergence and  
Rotation of Astigmatism  
Our ref.: R 1919 - ro/hf

#### Abstract

The invention relates to an ophthalmic lenses and a method for producing a progressive ophthalmic lens having at least one progressive surface, whereby the lens comprises

- a far vision part designed for seeing at great distances and having a far reference point,
- a near vision part designed for seeing at short distances and having a near reference point,
- a progression zone situated between the far vision part and the near vision part where the effect of the lens increases from a value known as addition along a principal line from the value at the far reference point to the value at the near reference point,

whereby a calculation and optimization step [in the production] of the progressive lens is performed so that the absolute value of the rotation  $|\text{rot}\vec{A}|$  and/or the divergence  $|\text{div}\vec{A}|$  of a vectorial astigmatism  $\vec{A}$  is as small as possible, whereby the absolute value  $|\vec{A}|$  of the vectorial astigmatism  $\vec{A}$  is proportional to the absolute value of an astigmatism in the use position of the progressive lens or a surface astigmatism of the at least one progressive surface of the progressive lens, and the direction of the vectorial astigmatism  $\vec{A}$  is proportional to the cylinder axis of an astigmatism in the use position of the progressive lens or a surface astigmatism of the at least one progressive surface of the progressive lens.

(FIG 5B)